



Well Name: MSH Farms 12-15

Surface Location: MSH Farms 15-P Pad Sec.15-T7N-R67W
North American Datum 1983 US State Plane 1983 Colorado Northern Zone
Ground Elevation: 5054.0
Northing 1450181.70 Easting 3170840.07 Latitude 40.567522 Longitude -104.885069 Slot
Original Well Elev WELL @ 5070.0ft (Original Well Elev)

+N/-S
0.0

+E/-W
0.0

Northing
1450181.70

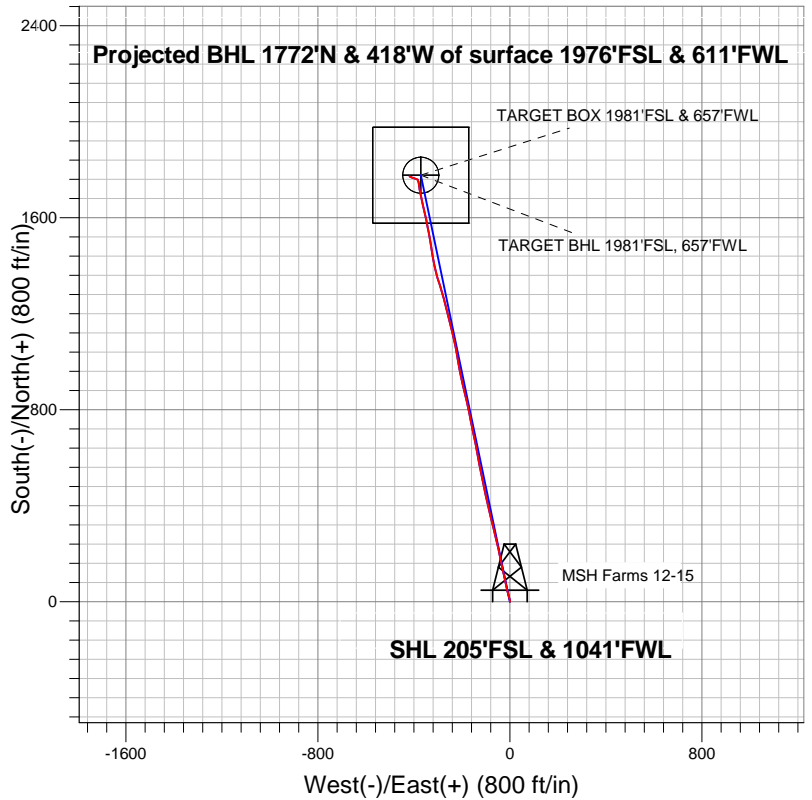
Easting
3170840.07

Latitude
40.567522

Longitude
-104.885069

Slot

Bayswater Exploration & Production, LLC



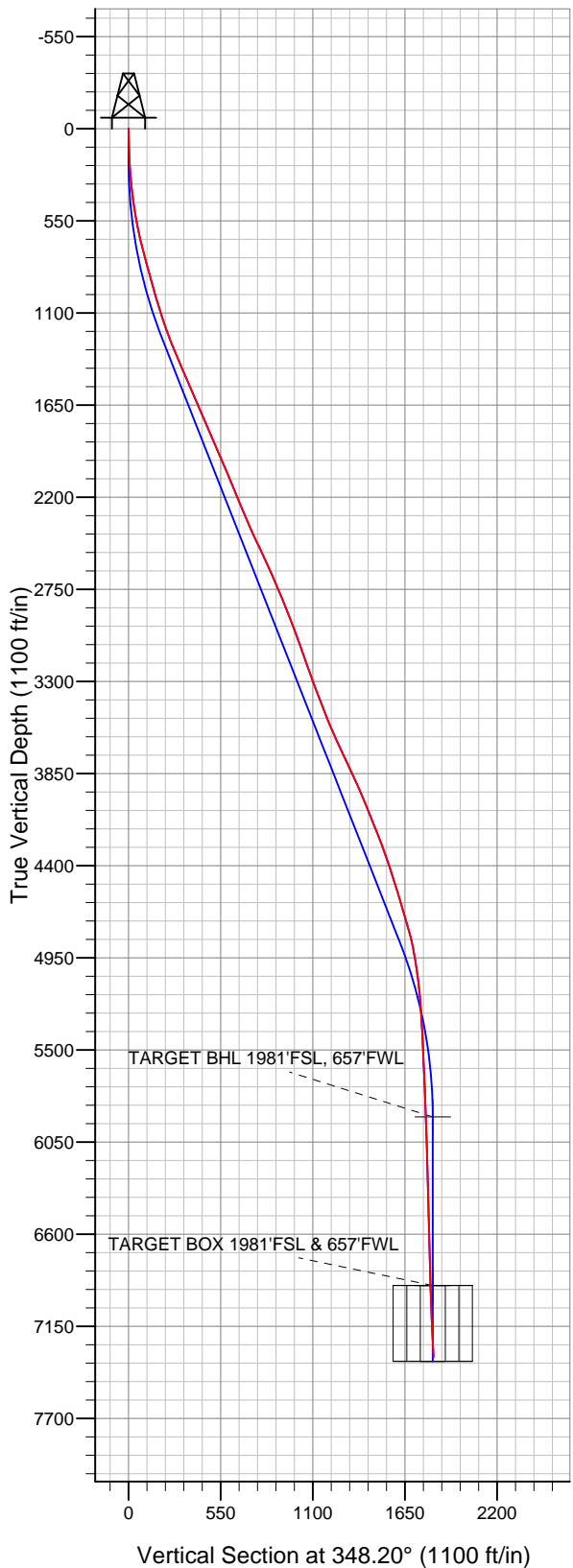
LEGEND

- MSH Farms 12-15, Wellbore #1, Plan #1 (10-29-13)R V0
- Wellbore #1
- Survey #1

Final Survey Plot

Projected Final Survey -
7655'MD & 7335'TVD @ 1820'VS
4.6 deg Inc 295.0 deg AZ

Project: SEC.15-T7N-R67W
Site: MSH Farms 15-P Pad Sec.15-T7N-R67W
Well: MSH Farms 12-15
Plan: Wellbore #1





Bayswater Exploration & Production, LLC

SEC.15-T7N-R67W

MSH Farms 15-P Pad Sec.15-T7N-R67W

MSH Farms 12-15

Wellbore #1

Survey: Survey #1

Standard Survey Report

12 February, 2014

Company:	Bayswater Exploration & Production, LLC	Local Co-ordinate Reference:	Well MSH Farms 12-15
Project:	SEC.15-T7N-R67W	TVD Reference:	WELL @ 5070.0ft (Original Well Elev)
Site:	MSH Farms 15-P Pad Sec.15-T7N-R67W	MD Reference:	WELL @ 5070.0ft (Original Well Elev)
Well:	MSH Farms 12-15	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Project	SEC.15-T7N-R67W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		Using Well Reference Point
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		MSH Farms 15-P Pad Sec.15-T7N-R67W			
Position:		Northing:	1,450,181.70ft	Latitude:	40.567522
From:	Lat/Long	Easting:	3,170,840.07ft	Longitude:	-104.885069
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	0.40 °

Well	MSH Farms 12-15					
Well Position	+N/-S	0.0 ft	Northing:	1,450,181.70 ft	Latitude:	40.567522
	+E/-W	0.0 ft	Easting:	3,170,840.07 ft	Longitude:	-104.885069
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,054.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/29/2013	8.62	67.08	52,954

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	348.20	

Survey Program		Date	2/12/2014		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
96.0	7,655.0	Survey #1 (Wellbore #1)	MWD	MWD - Standard	

Survey	Wellbore Data									
	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Survey 1	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	96.0	1.80	6.70	96.0	1.5	0.2	1.4	1.88	1.88	0.00
	186.0	2.90	354.20	185.9	5.2	0.1	5.0	1.34	1.22	-13.89
	276.0	4.70	344.00	275.7	11.0	-1.1	11.0	2.13	2.00	-11.33
	366.0	6.40	342.30	365.3	19.3	-3.7	19.6	1.90	1.89	-1.89
	458.0	8.60	344.00	456.5	30.8	-7.1	31.6	2.40	2.39	1.85
	548.0	10.20	348.20	545.3	45.1	-10.6	46.3	1.93	1.78	4.67
	639.0	12.00	349.10	634.6	62.2	-14.1	63.8	1.99	1.98	0.99
	730.0	14.90	346.30	723.1	82.9	-18.6	85.0	3.27	3.19	-3.08
	842.0	15.00	346.70	831.3	111.0	-25.4	113.8	0.13	0.09	0.36
	970.0	16.10	349.30	954.6	144.6	-32.5	148.1	1.02	0.86	2.03
	1,098.0	17.10	348.10	1,077.3	180.4	-39.6	184.7	0.83	0.78	-0.94
	1,227.0	19.70	347.70	1,199.7	220.2	-48.2	225.4	2.02	2.02	-0.31

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Site:	MSH Farms 15-P Pad Sec.15-T7N-R67W	MD Reference:	WELL @ 5070.0ft (Original Well Elev)
Well:	MSH Farms 12-15	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,355.0	22.20	346.80	1,319.2	264.9	-58.3	271.2	1.97	1.95	-0.70
1,483.0	23.10	346.50	1,437.3	312.8	-69.7	320.5	0.71	0.70	-0.23
1,611.0	23.40	346.50	1,554.9	361.9	-81.5	371.0	0.23	0.23	0.00
1,740.0	24.60	346.70	1,672.8	413.0	-93.6	423.4	0.93	0.93	0.16
1,868.0	23.40	347.70	1,789.7	463.7	-105.2	475.5	0.99	-0.94	0.78
1,996.0	22.10	348.60	1,907.7	512.2	-115.4	525.0	1.05	-1.02	0.70
2,125.0	23.00	348.90	2,026.9	560.7	-125.0	574.4	0.70	0.70	0.23
2,253.0	22.90	350.00	2,144.7	609.8	-134.1	624.3	0.34	-0.08	0.86
2,381.0	23.00	349.30	2,262.6	658.9	-143.1	674.2	0.23	0.08	-0.55
2,509.0	23.70	347.70	2,380.1	708.6	-153.2	724.9	0.74	0.55	-1.25
2,638.0	25.20	348.40	2,497.5	760.8	-164.3	778.3	1.18	1.16	0.54
2,766.0	25.10	348.40	2,613.4	814.1	-175.2	832.7	0.08	-0.08	0.00
2,894.0	23.20	346.30	2,730.2	865.2	-186.7	885.1	1.63	-1.48	-1.64
3,022.0	21.20	346.10	2,848.7	912.2	-198.2	933.4	1.56	-1.56	-0.16
3,150.0	21.20	349.30	2,968.1	957.4	-208.0	979.7	0.90	0.00	2.50
3,279.0	19.50	350.00	3,089.0	1,001.5	-216.1	1,024.5	1.33	-1.32	0.54
3,407.0	20.30	351.20	3,209.4	1,044.5	-223.2	1,068.1	0.70	0.63	0.94
3,535.0	19.40	346.10	3,329.8	1,087.1	-231.7	1,111.5	1.52	-0.70	-3.98
3,663.0	22.10	347.40	3,449.4	1,131.2	-242.1	1,156.8	2.14	2.11	1.02
3,792.0	22.30	346.00	3,568.9	1,178.6	-253.3	1,205.5	0.44	0.16	-1.09
3,920.0	24.60	345.30	3,686.3	1,228.0	-265.9	1,256.4	1.81	1.80	-0.55
4,048.0	26.00	343.50	3,802.0	1,280.6	-280.7	1,311.0	1.25	1.09	-1.41
4,177.0	24.10	343.10	3,918.9	1,333.0	-296.4	1,365.4	1.48	-1.47	-0.31
4,305.0	22.20	346.00	4,036.6	1,381.4	-309.8	1,415.6	1.73	-1.48	2.27
4,433.0	21.50	350.20	4,155.4	1,428.0	-319.6	1,463.2	1.34	-0.55	3.28
4,561.0	21.40	351.40	4,274.5	1,474.2	-327.1	1,510.0	0.35	-0.08	0.94
4,690.0	18.50	350.00	4,395.8	1,517.7	-334.2	1,553.9	2.28	-2.25	-1.09
4,818.0	16.90	348.80	4,517.7	1,555.9	-341.3	1,592.8	1.28	-1.25	-0.94
4,946.0	16.50	348.10	4,640.3	1,591.9	-348.7	1,629.6	0.35	-0.31	-0.55
5,074.0	16.30	347.50	4,763.1	1,627.3	-356.3	1,665.8	0.20	-0.16	-0.47
5,202.0	11.50	347.20	4,887.3	1,657.3	-363.1	1,696.5	3.75	-3.75	-0.23
5,331.0	8.20	344.40	5,014.4	1,678.7	-368.4	1,718.5	2.58	-2.56	-2.17
5,459.0	5.90	352.50	5,141.4	1,694.0	-371.7	1,734.2	1.95	-1.80	6.33
5,587.0	3.90	345.10	5,269.0	1,704.7	-373.7	1,745.1	1.64	-1.56	-5.78
5,715.0	2.90	357.60	5,396.7	1,712.2	-374.9	1,752.7	0.97	-0.78	9.77
5,886.0	2.60	353.30	5,567.5	1,720.3	-375.6	1,760.8	0.21	-0.18	-2.51
6,056.0	2.30	350.00	5,737.4	1,727.5	-376.6	1,768.0	0.19	-0.18	-1.94
6,220.3	1.92	346.19	5,901.5	1,733.4	-377.8	1,774.1	0.25	-0.23	-2.32
TARGET BHL 1981'FSL, 657'FWL									
6,227.0	1.90	346.00	5,908.3	1,733.7	-377.9	1,774.3	0.25	-0.23	-2.81
6,398.0	1.80	349.80	6,079.2	1,739.0	-379.1	1,779.8	0.09	-0.06	2.22
6,569.0	1.50	353.30	6,250.1	1,743.9	-379.8	1,784.7	0.18	-0.18	2.05
6,740.0	1.60	343.70	6,421.0	1,748.4	-380.7	1,789.3	0.16	0.06	-5.61
6,911.0	1.60	347.90	6,592.0	1,753.1	-381.9	1,794.1	0.07	0.00	2.46
7,082.0	1.20	343.70	6,762.9	1,757.1	-382.9	1,798.3	0.24	-0.23	-2.46
7,225.0	3.04	290.29	6,905.8	1,759.9	-386.9	1,801.8	1.76	1.29	-37.35
TARGET BOX 1981'FSL & 657'FWL - TARGET CIRCLE 1981'FSL & 657'FWL									
7,253.0	3.50	287.20	6,933.8	1,760.4	-388.4	1,802.6	1.76	1.64	-11.04
7,424.0	4.90	289.90	7,104.3	1,764.4	-400.2	1,809.0	0.83	0.82	1.58
7,595.0	4.60	295.00	7,274.7	1,769.8	-413.3	1,816.9	0.30	-0.18	2.98
7,655.0	4.60	295.00	7,334.5	1,771.8	-417.7	1,819.8	0.00	0.00	0.00

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Checked By: _____	Approved By: _____	Date: _____
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